WHAT IS CLAIMED IS:

1. A method of repairing a Ni-based alloy part having an undercoat layer and a topcoat layer stacked on a Ni-based alloy base when the topcoat layer is damaged, comprising the steps of:

removing a damaged portion of the topcoat layer and a denatured portion of the undercoat layer corresponding to the damaged portion;

forming another undercoat layer in a removed portion where the original undercoat layer has been removed by spraying performed in the atmosphere at a spray particle speed of 300 m/s or more and a base-material temperature of 300°C or less; and

forming another topcoat layer where the topcoat layer has been damaged.

2. The method of repairing a Ni-based alloy part according to claim 1, wherein a layer formed of a material having excellent oxidation resistance is used as said other undercoat layer.

3. The method of repairing a Ni-based alloy part according to claim 1, wherein a layer formed of a material having excellent oxidation resistance is used as said other topcoat layer.

4. The method of repairing a Ni-based alloy part according to claim 1, wherein spraying is applied to the removed portion of the undercoat layer, followed by forming another topcoat layer in the removed portion of

the topcoat layer by an electron beam physical vapor deposition method.

5. The method of repairing a Ni-based alloy part according to claim 1, wherein spraying is applied to the removed portion of the undercoat layer, followed by forming another topcoat layer in the removed portion of the topcoat layer by an electron beam physical deposition method.

6. A method of repairing a Ni-based alloy part having an undercoat layer and a topcoat layer stacked on a Ni-based alloy base when the topcoat layer is damaged, comprising the steps of:

removing a damaged portion of the topcoat layer and a denatured portion of the undercoat layer corresponding to the damaged portion;

applying spraying to a removed portion where the undercoat layer has been removed at reduced pressure, a spray particle speed of less than 300 m/s, and a base-material temperature of 600°C or less; and

forming another topcoat layer in the damaged portion of the topcoat layer.

7. The method of repairing a Ni-based alloy part according to claim 6, wherein a layer formed of a material having excellent oxidation resistance is used as said another undercoat layer.

8. The method of repairing a Ni-based alloy part according to claim 6, wherein a layer formed of a

material having excellent oxidation resistance is used as said another topcoat layer.

9. The method of repairing a Ni-based alloy part according to claim 6, wherein plasma spraying is applied to the removed portion where the undercoat layer has been removed, followed by forming another topcoat layer in the removed portion of the topcoat layer by an electron beam physical vapor deposition method.